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ABSTRACT

Participant evaluation research is described as a combination of three recent trends: action research conducted by teachers in their own classrooms, social action programs involving parent and community participation, and subjective epistemology which includes perceptions and contextual information within the accepted database. The planning phase of a specific participant evaluation research project is described, in which the distinctive characteristic was the involvement of parents, teachers, and professional evaluation specialists in planning and in decision making. This study was intended to investigate the relationship between educational productivity and home environment, classroom learning environment, and quantity and quality of instruction. Initial planning sessions were held separately with parents in one group and teachers in another. Afterwards, parents and teachers worked together. Various motivational and communications problems arose and are discussed as are a list of cautions concerning problems that are likely to occur in participant evaluation research projects. (CTM)

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Participant Evaluation Research: A Parent, Teacher, and Evaluator Partnership

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ABSTRACT

This paper discusses the antecedents of participant research and reports on the processes involved in conducting a participant evaluation research project involving parents, educational practitioners, and university based evaluators. Participant research is a response to the dissatisfaction of educational practitioners with university-based research, and it grows out of the action research movement of the 1940's, the social action programs of the 1960's, and the current interest in subjective epistomology. The problems of conducting a research study on educational productivity in partnership with parents and practitioners given the differing agenda, perceptions, and language of the various partners are discussed. Caveats for engaging in participant research identify areas where caution needs to be observed.

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Participant Evaluation Research: A Parent, Teacher, and Evaluator Partnership[1]

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This paper discusses the antecedents of participant research and reports on an evaluation research study involving parents, educational practitioners and university staff in a research partnership. Such cooperative endeavors may provide the bridge between research and practice and lead to policy decisions that build on research findings.

Antecedents of Participant Evaluation Research

Participant evaluation research brings together three trends in evaluation research. The first, action research, dates back to the 1940's. The second, social action programs, grew out of the social unrest of the 1960's. The third, subjective epistomology, has recently emerged out of researchers' interests in phenomenology and existentialism.

Action research. Practitioner dissatisfaction with university-based research led to a short-lived movement called action research. The term was coined in the late 1940's to describe studies conducted by teachers in the school setting based on educational concerns identified by teachers. It had a checkered history (Corey, 1953). Hodgkinson (1975) identified a number of reasons for its inability to make a serious contribution to the conduct of research studies. Conducted by practitioners, action research lacked the necessary rigor to formulate questions from a theoretical or conceptual base and the methodological and analytical tools to carry out a study. For the next two decades little was heard of action research in education.

We are experiencing a resurgence of interest in involvement of educational practitioners in research. The initial motivation for this renewed interest in the late 1960's was expediency. Obtaining subjects for research

had become more difficult than in the past: teachers, administrators, students and parents reacted negatively to being the subjects of someone else's study, and at times were overtly obstructive (Talmage, 1975). A period of psychological research between the 1940's and the 1960's bordered on the unethical. Leakage about biological experiments on human subjects that involved gross disregard for human rights further contributed to the reluctance of teachers and students to be willing subjects. Suspicion was rampant by the early 1970's, especially so when it became evident that the government and noted researchers sometimes lent respectability to such questionable research. Thus, involving practitioners in some facet of research, at least peripherally, opened some doors otherwise closed to researchers.

Within the past several years expediency as a motive has given way to a recognition of the contribution educational practitioners can make to research. The Institute for Research on Teaching since its inception in 1976 has included teachers in collaborative roles in planning, conducting, and analyzing research. According to Shalaway and Lanier (1978), the collaborative role "can help to produce research that is more applicable in the world of professional practice." Chall (1975) and Polemeni (1976) made similar observations.

Social action programs. The 1960's brought increased community involvement in social action programs and their evaluation. Parent and community participation was mandated in federally funded social action programs. Like action research, this too had its difficulties. The problem with action research was one of supplying expertise in the conduct of school-based studies. The problem with community participation in the social action programs was the sharing and distribution of power (Talmage and Ornstein, 1976; also see Gittell, 1967 and Davies, 1978). The reports of successes and failures of practitioner and lay involvement have not led to generalizable models for such participation. Some practical cautions on the conduct of such involvement, however, are now well documented (Grant, 1979).

Subjective epistomology. In their search for less traditional models of evaluation than objective-driven designs, evaluation researchers are presently engaged in an epistomological discussion of objective and sub-

jective methodologies (Scriven, 1972; House, 1978). This concern has prompted increased interest on the part of evaluation researchers in the insights and perspectives which school personnel and parents can bring to bear on understanding the learning setting. Such modes of inquiry as naturalistic evaluation (Guba, 1978), ethnographic research (Lendir, 1977), and transactional evaluation (Rippey, 1973) reflect concern with the idiosyncratic nature of "facts" in specific situations. The context receives primary attention. The sources of data are the perceptions of those most intimately affected by and in turn affecting the context. Although perspectives may not always agree, each is valued as data for understanding the context. The very disagreement as to "what is" is in itself valid evidence of the nature of a phenomenon under study (Light. 1979). Recognition of the unique perspectives present problems in generalizing findings. Generalizability, however, is not the major concern of subjective methodologies (Guba, 1978).

From the antecedents to the present study. Action research opened up possibilities for practitioners to assume a role in research; government funded social action programs thrust the community into decision making roles. And both, abetted by subjective models of evaluation, enlarged the researchers' perspective for conceptualizing studies. Thus, participant evaluation research emerged as the next logical step. House (1978) categorizes such models as "liberal pluralism." As it will be described in this study, participant evaluation research draws on the best of practitioner involvement (action research) and lay involvement (social action programs) and hopefully avoids the pitfalls of both as well as the generalizability dilemma of subjectivist epistomology.

There are a number of lessons to learn from both action research and community participants in social action programs. Two conditions must be fulfilled to conduct research in the naturalistic settings: researchers, practitioners and parents need to pool their expertise and unique perspectives, and they must confront and resolve the questions of territorial intrusion and power distribution. For the researcher, cooperative participant evaluation research requires attention to two processes: (1) the process of implementing a research study; and (2) the process of coalescing groups of persons from diverse backgrounds and interests in

a cooperative arrangement directed by common goals. While the former process is one dictated by the particular design of the study, both processes cast the researcher in a new role (Talmage, 1975). The research design can no longer be shaped solely by the researcher but must accommodate the interests and immediate concerns of the other partners. And the process of accommodation calls for new skills on the part of the researcher that assist in developing common goals.

Attention to the process of involving people in a partnership is mandatory given the differing agendas, perceptions, and language for communicating educational concepts among the various partners. Each group has its own set of constraints which are imposed on the others. Researchers must understand that time spent on the process of communication, through allaying suspicion and anxieties, and in adjusting goals so that they have meaning to all groups, is time well spent. In the long run it establishes a forum through which the partners can function comfortably, thereby extracting the unique contribution each group can make. The additional effort researchers must expend in collaborative arrangements is more than compensated for by the insights practitioners and parents bring to the study.

Participant research is not undertaken without its special costs. Union rules prohibit teacher participation beyond the contracted school hours without due compensation, and parents' contribution increases in perceived value as it commands a monetary price tag. Hence monies for teachers and parents as consultants are necessary budget items.

The remainder of the paper describes the second type of process, coalescing diverse groups around shared research goals, as it unfolded in a racially integrated school setting.

The Participant Evaluation Research Study

Park Forest Elementary School District #163 is located about 30 miles south of Chicago. The area held national attention as a developer's model for building a community from scratch in responding to housing needs immediately following World War II. Over the years, one section of the school district became predominantly black in racial composition and more

and more racially isolated. Seven years ago the school district initiated a desegregation plan. The Office of Evaluation Research (OER) has been evaluating the educational impact of desegregation since the desegregation plan was put into effect.

Presently the district has somewhat over 2,900 students attending nine schools. The student makeup is approximately 40 per cent minority and all schools are racially balanced through a desegregation plan involving two-way busing of students between the several communities making up the school district. Approximately 85 per cent of the minority students in the district come from low income homes; one out of every four district students participate in the free lunch program.

Prior evaluation research studies. OER conducted several levels of evaluation during the seven year period; the findings provided the district with a solid data base for guiding educational policy (see Eash and Rasher, 1977). Follow-up studies continue to monitor and analyze achievement of the district's students (Pascarella, Talmage, and Rasher, 1979). One finding stood out: Home support was positively correlated with achievement with the effects of race removed.

To this point OER's relations with the district was that of evaluator to client. The district facilitated implementation of the studies and the evaluator shared the findings with the district administrators and board of education. To capitalize on these findings and to seek new ways of enhancing academic achievment, it was evident that both the school and the home needed to work together if further improvement was to be realized. At this point the idea of a participant research study was born.

This report follows the groups' efforts over a period of one and a half years, from its inception to the struggles of building trust among the members, the conduct of a research study and the translation of findings into application in the home and classroom.

Selection of a participant research team. The district staff and OER identified a group of 12 parents, eight teachers, six administrators, an educational theorist, two applied researchers and four graduate students

to participate in the study. The purpose of bringing the group together was to share the findings from the prior achievement studies, to consider them within a theoretical model of educational productivity, and to discuss the possibility of launching an evaluation research study cooperatively.

Selection of both teachers and parents to participate in the project was carried out under the guidance of the school principals and the Assistant Superintendent of Curriculum. Each principal was asked to select one third and one sixth grade teacher to participate in the project. None of the seven teachers was scheduled to undergo district evaluation during the year. As one selection criterion, only teachers regarded as "very capable" by their peers were invited to participate. This was to ensure effective communication of the project's outcomes to the larger body of nonparticipating teachers.

Parents were selected on the basis of past interest in school affairs regardless of the form the interest took (outspoken critics or advocates of present school policy). The school district made a concerted effort to include several parents of children who had not had successful school experiences. Of the twelve parents who participated, four could be described as disaffected with the district's school and policies.

Assumptions underlying the study. In working out the initial steps, OER and the Assistant Superintendent of Curriculum sketched a tentative plan for engaging the groups in discussion about the achievement findings and the role of home and school environments in enhancing achievement. Two assumptions guided the collaborative undertaking. (1) Research employing inputs from teachers, parents, administrators and researchers require a high level of trust among participants. (2) All parties represented in the study must be included in all phases of the research, from planning through implementation and subsequent policy decision making.

The decision was made to conduct initial discussions separately with parents and with teachers and administrators. After that the direction would come from the groups with OER researchers and graduate students providing optional ways of proceeding. The intent was to get the groups together as early in the process of formulating a study as would be comfortable for all parties.

The initial sessions. During the first session with each group, the participants discussed the achievement findings and shared their concerns about the role of the home and the school in fostering academic achievement. OER raised the question of what parents regard as the single most important role of schooling. The same question was raised with the practitioner group at its first session. The responses were the same: academic achievement. Based on this response, OER staff introduced a theoretical model of educational productivity by way of examining academic achievement. This model (Walberg, 1979) relates one important, quantifiable outcome of schooling to a range of inputs, also known as productivity factors. The measured outcome of schooling is achievement test scores, and the seven selected inputs are age, ability, motivation, home environment, classroom learning environment, quantity and quality of instruction. These inputs were identified on the basis of significant, well substantiated correlations with the outcome measure. The Walberg model is predicated on a mathematical formula from econometric literature. The model has anticipated predictive value in that the weighted contribution of each of the seven types of inputs to academic achievement can be estimated.

The participants were asked to think of examples, counter examples or personal experiences relevant to each input factor. For example, in the area of home environment, research findings were presented which stress the importance of verbal stimulation. Parents were anxious to report their efforts at enhancing their child's verbal ability by reading to them, discussing a television program, helping them write letters and other activities. Similar sharing of experiences occurred as each input or production factor was discussed. It should be pointed out that as quality of instruction was presented, teachers become even more involved and curious about prior research findings and offered many examples from their own classroom experience. On this same factor, the parents at their session animatedly reported both positive and negative teacher behaviors that represented quality of instruction. At the end of each of the separate initial meetings the participants brought home materials describing research findings on each of the factors. They were asked to think about ways of describing characteristics of the productivity factors.

The joint sessions: A process in action. Parents, teachers, administrators and OER staff met jointly for the first time to discuss the feasibility of undertaking a cooperative evaluation research study with a focus on the Walberg education productivity model. Consensus to go ahead presented no difficulty. After a general discussion of the seven factors the group agreed on four as those most possible to study given potential measurement problems and cost-effectiveness concerns. These included home support, classroom learning environment, quality of instruction, and quantity of instruction. These four factors are those over which the school and home have some control, hence manipulable.

At this session six groups were formed consisting of at least one parent, one teacher or administrator, and one OER member. Each group prepared a list of variables that were associated with the production factor they were studying. In addition, they generated positive and negative examples of the factor, and possible ways of measuring the factor. The three-way dialogue involving parents, school personnel, and and OER staff provided a broad base of input and assured better coverage of salient variables than possible if any of these groups had been excluded. Extensive discussion did occur as the desire to measure "everything" had to be balanced against cost-effectiveness.

The first joint session went well as the small group setting provided everyone with an opportunity to interact informally and to struggle together with their new vocabulary. Salient variables associated with each factor were identified and the lists were elaborated when the discussion was turned back to the total group. If individuals within a group were uneasy, this was not evident. But dissatisfaction surfaced sharply and dramatically at the following session, a session on instrumentation for measuring the four factors.

At the next joint session groups were again formed based on the production factors studied at the previous meeting. The groups laid the groundwork for instruments which would measure each factor. It should be pointed out that OER staff provided the groups with examples of instruments which could serve as a prototype for the development of their own instruments. Each group agreed on the type of measure to be employed, the sample on which to test the instrument, and arrangements for data collection.

During this meeting the experiences of the various groups of participants shaped the development of the instruments. For example, in the group working on home environment, parents played a major role in producing items to measure the construct. They also were heavily involved in determining whether the tone of the items would be offensive to other parents. In the group on "Quality of Instruction," teachers played a crucial role in the final selection of variables to be measured using an observation scale. Teachers, however, raised objections to the label of this factor; it was subsequently decided to refer to the factor as "Instructional Practices." Changing the label allayed some uneasiness among the teachers, however, the issue surfaced again as teachers raised other objections to measuring instructional practices. Some teachers expressed doubts that reliable and valid ratings of such behaviors could be made, whereas others felt the activity itself, instrument development, helped to make them more aware of effective teaching practices.

Despite teacher objections there were positive effects in the parent teacher exchange on "Instructional Practices." The dialogue between teachers and parents provided both parties with a better sense of parental expectations in the light of classroom realities. And one important decision made at this session was to include parents in the actual field testing of the instruments, a somewhat novel role for the parent group and one that may have pushed the concept of cooperation a bit too far, too soon.

As the sessions concerned with preparation of field testing the instruments progressed an undertow of negative sentiment was expressed by some teachers and a few parents. Two potential problems were pinpointed through one-to-one asides initiated by individual parents with OER staff. Several "militant" black parents perceived the cooperative study as peripheral to their main concern: the subtle racism of the educational program. A racially mixed group of parents also raised questions about the teachers' defensiveness which put a damper on the kind of openness the cooperative undertaking assumed as a requisite for participant research. In the words of one parent, "The teachers are only too ready to talk about the home environment, but they sure don't like us to talk about the quality of instruction by what ever name we give it!"

OER staff discussed both parent concerns with the district administration. In the first instance, the central office had shifted principals in several schools and closed one school due to a drop in enrollment without explaining the reason for the changes (or at least this was how it was perceived by these parents). Some black parents may have looked at this as not in the best interest of their children. It was agreed that the central administration would call a meeting of parents, apart from the research study, to exchange views and correct misconceptions of intent. As it turned out, some of the white parents also wanted clarification on why the particular school was selected for closing. This certainly pointed up the need for better communication between the central administration and the community. Once parents found out the reason for the school closing, two dropped out of the group inasmuch as the research study was not a strong personal interest. The remaining parents who could be labelled as "militant" were articulate questioners of all school policy. These parents proved important assets.

On the teachers' side, another agenda was being played out simultaneously. The teacher's union was negotiating the following year's contract and teacher evaluation was a central issue in the discussions. That facet of the participant study dealing with quality of instruction was perceived as the central administration's way of imposing administrative evaluation on teachers. The word was out that an observation instrument used by administrators (abetted by parents and a university team) would become the instrument for evaluating teachers. Discussion with the union president, who was a teacher participant in the study, made it clear that the factor "Instructional Practices" had no relation to teacher evaluation under union negotiation. She suggested the group give less "play" to this factor until negotiations were completed. It was agreed that no teacher's class would be visited unless the teacher volunteered and only data collected by an OER staff member would be used for data analysis. Principals would not observe the classes; parents could accompany an OER member on class visits, but would not themselves collect data.

Following field tests of the instruments, OER staff analyzed the data on "Quality of Instruction," "Instructional Practices," "Home Support," and the "Classroom Learning Environment." The results were discussed with

the whole group in terms of educational productivity. With funding obtained from the Office of Equal Opportunity of the State of Illinois for a summer workshop, the total group continued to work on strategies for improving educational productivity. While the groups initially entered into the task with enthusiasm, "Instructional Practice" once again emerged as a bottleneck. Teachers continued to find this threatening. A compromise was worked out on "Instructional Practices." Instead of developing specific strategies for improving instruction, a general model for developing such strategies was produced by the total group. In effect, each teacher could use the model to improve his/her own strategies given the specific classroom context. The total group, however, did make excellent suggestions for improving the home environment and on finding strategies for increasing students' time on task.

Extension of the cooperative study. This year external funding has not been available but the school district and OER earmarked what monies were available for further discussions with the intention of launching a full scale evaluation-research study. The original research group was called together this year. Surprisingly, 24 of the 31 original members responded and like long lost friends tackled the issues once again. After an initial review session, parents, teachers, and administrators were "talking" the language and feeling comfortable doing so. At this point in time, the group is preparing a full scale study of educational productivity, including "Instructional Practices." A joint proposal to extend the former feasibility study was developed and submitted to a federal agency for funding. While outside funding is not assured, the school district has offered to redirect funds from another source to this work, and OER has agreed to do the same. A group of parents said they want to see the study proceed, and as their part of the contribution they would forego compensation.

Two examples serve as a final note to how participant evaluation research can affect education. Two teachers initiated meetings with OER staff to discuss research studies they would like to carry on this coming school year in their classroom. Parents, too, gained a firmer voice. After reviewing the home environment instrument they felt it reflected

too strong a middle class bias. These parents are now conducting parlor meetings with other parents they invited in order to get further input on the home environment before recasting the instrument. These meetings are being conducted under the direction of an ad hoc parent group with the assistance of a graduate student.

Manipulation or Facilitation?

Launching the participant research endeavor entails an all important first step. Which group puts the agenda forward at the first session can be perceived as manipulating the others or as facilitating a group process. The OER group assumed the initiating role, understanding the thin line between manipulation and facilitation. The first decision to share the longitudinal achievement findings we felt was facilitative. The follow-up question posed to each group after discussion of the district's achievement findings, however, could be construed as manipulative; it carried with it an anticipated response. In each case the anticipated response, achievement, was forthcoming. This borders on a manipulated response. It did force the group to focus on a single issue around which all participants had a common concern.

The decision to go this route was deliberate. Process can be an end in itself as so many projects using group awareness and sensitivity techniques as a starting point have demonstrated (Eash and Rasher, 1977). We chose to emphasize the task, being mindful of process pitfalls. In this way the groups learned to communicate as equals with each other in response to a common task. Process difficulties were attended to as the situations arose. Once the focus was established, OER's role was nondirective, only contributing its insights through the same mechanisms available to parents and practitioners. The total group put data analyses in the hands of OER because the school year was drawing to a close. The interpretation of the data, however, was a group endeavor.

Caveats for a Research Conducting Participant Evaluation Research

What have we learned in developing a new role for researchers and how generalizable is it to other cooperative partnerships?

1. The researcher must become familiar with the educational context (i.e., the network of relationships and organizational settings through which the practitioners and parents function).

2. The researcher must set the tone for groups receiving each other as valued partners.

3. The researcher must be able to provide the various partners with the information base that allows parents and practitioners to function as co-equals.

4. The researcher must be able to draw freely on the special insights of each group and make the others aware of this as a group contribution.

5. The researcher must understand the educational issues central to both parents and practitioners in helping to establish a common task as the focal point for working cooperatively.

6. The researcher will need to keep preconceived plans for a research study open. Presenting a generalized approach with many options permits a study to be shaped by the total group.

7. The researcher must remain sensitive to the innuendoes that suggest potential intergroup problems.

8. The researcher will be called on to arbitrate educational issues peripheral to the cooperative research study. Partisan positions must be avoided.

9. Where external issues surface to disrupt the research study or set up antagonisms among members, the researcher should distinguish intergroup conflicts arising from the study from those arising from external issues.

10. Where possible the researcher should facilitate discussion of external issues apart from the research study. The researcher should remove him/herself from further involvement.

Every context is somewhat different and each has hidden problems that surface in unexpected ways. Alertness to potential problems and openness in helping to work them through are facets of the new skills needed for researchers to engage in participant evaluation research.

Note

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Bibliography

Chall, N. Restoring dignity and self worth to the teacher. Phi Delta Kappan, 1975, 57, 170-174.

Corey, S. M. Action research to improve school practices. New York: Bureau of Publications, Teachers College, Columbia University, 1953.

Davies, D. Citizen participation in school. Citizen Action in Education, 1978, 1(1), 12-14.

Eash, M. J., & Rasher, S. P. Mandated desegregation and improved achievement: A longitudinal study. Phi Delta Kappan, 1977, 58, 394-397.

Gittell, M. Participants and participation. New York: Praeger, 1967.

Grant, Carl A. Community participation in education. Boston, Mass.: Allyn & Bacon, 1979.

Guba, E. G. Toward a methodology of naturalistic inquiry in educational evaluation. CSE Monograph Series in Evaluation, UCLA, 1978.

Hodgkinson, H. L. Action research: A critique. Journal of Educational Sociology, 1957, 31, 137-153.

House, E. R. Assumptions underlying evaluation models. Educational Researcher, 1978, 7(3), 4-12.

Lendir, T. G. Using the Ethnographer's perspective to diagnose problems in educational practice. National Institute of Education, Washington, D.C., BBI 0383, 1977.

Light, R. Integrating multiple empirical studies. A paper presented at the American Educational Research Association Conference, San Francisco, California, April 1979.

Pascarella, E. T., Talmage, H., & Rasher, S. P. Summative Analysis of Longitudinal Student Achievement Data in a Desegregated School District. A paper presented at the American Educational Research Association Conference, Division H, San Francisco, California April 1979.

Polemeni, A. J. Research and teacher power. Educational Leadership, 1976, 33, 493-497.

Rippey, R. M. (Ed.). Studies in transactional evaluation. Berkeley, CA: McCutchan, 1973.

Scriven, M. Objectivity and subjectivity in educational research. In L. G. Thomas (Ed.), Philosophical Redirection of Educational Research. Seventy-first Yearbook of The National Society for the Study of Education, Part I. Chicago: The University of Chicago Press, 1972.

Shalaway, L., & Lanier, J., et. al. Teachers attaining new roles in research: A challenge to the education community. Conference Series No. 4. East Lansing, Michigan: The Institute for Research in Teaching, 1978.

Talmage, H. Evaluation of local school/community programs: A transactional evaluation approach. Journal of Research and Development in Education, 1975, 8(3), 32-39.

Talmage, H., & Ornstein, A. C. School Superintendents' attitudes toward community participation: Advisement versus control. The Journal of Educational Administration, 1976, XIV, 162-174.

Walberg, H. J. Psychological theory of educational productivity. Invited address presented at the annual meeting of the American Psychological Association, Toronto, Ontario, Canada, 1978.

Walberg, H. J. A theoretical model of educational productivity and its practical implications. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, California, 1979.